

**ABSTRACT**

**ANALYSIS OF LOW DOSE ASPIRIN  
ON PLATELET AGGREGATION PERCENTAGE  
IN PREGNANT PATIENT WITH HIGH RISK HYPERTENSION  
(Study at Obstetric and Gynecology of Haji Teaching Hospital  
and Wonokromo Primary Healthcare Surabaya)**

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Low dose aspirin (LDA) is one of platelet aggregation agents in high risk pregnancy that is believed to prevent complication by inhibiting thromboxane A<sub>2</sub> as a strong vasoconstrictor in platelet. It can inhibit platelet aggregation involved in pathophysiology of pregnancy hypertension. The aim of this study was to analyze the effect of LDA on platelet aggregation in pregnant patient with high risk hypertension.

A prospective observational method was conducted in this study. It was approved by the Ethics Committee of Haji Teaching Hospital Surabaya. Data was collected from July to September 2018 involving 18 patients divided into three groups who have age of 35-39 years old in majority. The range of gestational age in this study was 19-37 weeks. Platelet aggregation on plasma were measured before and 14 days – 30 days after LDA use. The collected data were statistically analyzed by using paired t-test.

The result showed that platelet aggregation percentage using collagen agonists was an increase of 0.8% ( $p > 0.05$ ) in the old patients group and followed by 6% ( $p > 0.05$ ) in the group of patients who did not get LDA. Whereas in the group of new patients showed a decrease of 6% ( $p > 0.05$ ). While ADP agonists showed that the group of new patients decreased by 17% ( $p > 0.05$ ), followed by the group of patients who did not use LDA of 9% ( $p > 0.05$ ) and the old patient group was 4% ( $p > 0.05$ ).

It could be concluded that low-dose aspirin use did not affect a decrease in platelet aggregation values.

**Keywords:** low-dose aspirin, high risk pregnancy, platelet aggregation, collagen, ADP